

SEQUENCE LISTING

<110> Council of Scientific and Industrial Research

<120> A chemically synthesized artificial promoter for high level expression of transgenes and a method for its synthesis

<130> Q52511

<140> 09/263,692

<141> 1999-03-05

<150> 3322/Del/98

<151> 1998-11-09

<160> 20

<170> PatentIn version 3.0

<210> 1

<211> 452

<212> DNA

<213> Artificial

<220>

<223> synthetic DNA promoter sequence

<400> 1

gtcgaccatc atttgaaagg gcctcggtaa taccattgtg gaaaaagttg gtaatacgga	60
aaaagaagat tcatcatcca gaaaaggtgt ggaaaagttg tggattgcgt ggaaaaagtt	120
cgatctgacc atctctagat cgtggaaaaa gttcacgtaa gcgcttacgt acatatgtgg	180
attgtggaaa aagaagacgg aggcacggt ggaaaaagaa gcttgtacgc tgtacgctga	240
cgatagatag atacacgtgc acgcgtccac ttgacgcaca attgacgcac aatgacgcca	300
cttgacgcta cttcactata tataggaagt tcatttcatt tggaatggac acgtgttgtc	360
atttctcaac aattaccaac aacaacaaac aacaaacaac attatacaat tactatttac	420
aattacatct agataaaciaa tggcttctc ca	452

<210> 2

<211> 18

<212> DNA

<213> Artificial

<220>

<223> TATA context for highly expressed genes

<220>

<221> misc_feature

<223> "n" may be a, c, g, or t

<400> 2
ytwyntcact atatatag

18

<210> 3
<211> 18
<212> DNA
<213> Artificial

<220>
<223> TATA context for lowly expressed genes

<220>
<221> misc_feature
<223> "n" may be a, c, g, or t

<400> 3
tttnnnnttt atannnat

18

<210> 4
<211> 7
<212> DNA
<213> Artificial

<220>
<223> transcription start site context

<220>
<221> misc_feature
<223> "n" may be a, c, g, or t

<400> 4
annnnca

7

<210> 5
<211> 46
<212> DNA
<213> Artificial

<220>
<223> minimal domain (b)

<400> 5
ccacttgacg cacaattgac gcacaatgac gccacttgac gctact

46

<210> 6
<211> 46

<212> DNA
<213> Artificial

<220>
<223> domain I

<400> 6
gcttgtacgc tgtacgctga cgatagatag atacacgtgc acgcgt

46

<210> 7
<211> 8
<212> DNA
<213> Artificial

<220>
<223> domain II(a)

<400> 7
rrrrrrrr

8

<210> 8
<211> 6
<212> DNA
<213> Artificial

<220>
<223> domain II(b)

<400> 8
CWWCWW

6

<210> 9
<211> 8
<212> DNA
<213> Artificial

<220>
<223> domain II(c)

<400> 9
ggtaatac

8

<210> 10
<211> 16
<212> DNA
<213> Artificial

<220>
<223> domain II(d)

<400> 10
 acryaagcgc ttacgt 16

<210> 11
 <211> 22
 <212> DNA
 <213> Artificial

<220>
 <223> domain III

<400> 11
 cgatctgacc atctctagat cg 22

<210> 12
 <211> 27
 <212> DNA
 <213> Artificial

<220>
 <223> region between minimal promoter (a) and transcription start site

<400> 12
 ggaagttcat ttcatttgga atggaca 27

<210> 13
 <211> 89
 <212> DNA
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<220>
 <223> 5' untranslated leader region

<400> 13
 acgtgttgtc atttctcaac aattaccaac aacaacaaac aacaaacaac attatacaat 60
 tactattttac aattacatct agataaaca 89

<210> 14
 <211> 20
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<220>
 <223> translational initiation codon context for highly expressed genes

<220>
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 <223> "n" may be a, c, g, or t

<400> 14
atmaacaatg gctnccncna

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<210> 15
<211> 17
<212> DNA
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<220>
<223> translational initiation codon context for lowly expressed genes

<220>
<221> misc_feature
<223> "n" may be a, c, g, or t

<400> 15
ganatggngn ngnnana

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<210> 16
<211> 4
<212> PRT
<213> Artificial

<220>
<223> N-terminal amino acids

<400> 16

Met Ala Ser Ser
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<210> 17
<211> 58
<212> DNA
<213> Artificial

<220>
<223> primer for introduction of ATG context into synthetic DNA promoter sequenc

<400> 17
aattacatct agataaaca tggcttcctc cgtagaaacc ccaaccctg aaatcaaa

58

<210> 18
<211> 13
<212> DNA
<213> Artificial

<220>

<223> domain I(a)

<400> 18

cacgtgcacg cgt

13

<210> 19

<211> 12

<212> DNA

<213> Artificial

<220>

<223> domain I(b)

<400> 19

gatagataga ta

12

<210> 20

<211> 21

<212> DNA

<213> Artificial

<220>

<223> domain I(c)

<400> 20

gcttgtagcg tgtacgctga c

21